

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the above amendments and the following remarks, which place the application into a condition for allowance.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1, 2, 5, and 6 are pending in this application and are rejected in the Office Action mailed January 10, 2008.

II. THE REJECTIONS UNDER 35 U.S.C. § 102(b)

On page 2 of the Office Action, claims 1, 2, 5, and 6 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,258,139 to Jensen ("Jensen"). The rejection is respectfully traversed for at least the following reasons.

Independent claim 1 recites, inter alia:

A tool insert comprising:

a substrate having a support surface and a support ring extending laterally from the support surface, the support ring being sized to define a recess within the confines thereof and a shelf...wherein the substrate is tungsten carbide...;

a layer of ultra-hard abrasive material located within the recess...having a top surface, a portion of the periphery of the top surface providing a primary cutting edge for the tool insert; and

a protective layer...so as to protect the primary cutting edge, a periphery of the protective layer providing a secondary cutting edge for the tool insert, wherein the protective layer is formed of tungsten carbide of a different grade to that of the substrate, or of tool steel, or of another suitable material dependent on the first substance to be drilled. (Emphasis added.)

Accordingly, the periphery of the ultra-hard abrasive material located within the recess provides the primary cutting edge surface for the instant tool insert. Additionally, the protective layer is formed of tungsten carbide of a different grade to that of the substrate, or of tool steel, or of another suitable material.

As understood by Applicants, Jensen discloses a carbide substrate having a cavity into which a diamond core is sintered in place. A carbide region atop the diamond core provides a cover for the diamond core and acts as a buffer region for the diamond surface region sintered to form the top cutting surface of the polycrystalline diamond compact (PDC). *Jensen*, column 5, lines 40-48. As illustrated in at least Figs. 1 and 2a-2h, and as described in the above cited section, Jensen discloses a cutter that includes two diamond cutting surfaces separated by a carbide region, the second cutting surface being exposed as the first cutting surface wears away.

The Office Action asserts on page 2 that Jensen discloses a ring defining a recess (206) and a shelf (at 205) about the periphery of the substrate. If this is true, however, then the diamond core 203 does not provide the "primary cutting edge for the tool insert" as instantly claimed in claim 1. To the contrary, as recited in Jensen, the diamond core 203 provides an additional cutting edge, exposed as the primary diamond cutting surface and underlying carbide wear, to extend the cutting life of the PDC. *Jensen*, column 5, lines 49-52 and column 6, lines 8-11. The primary cutting edge of the diamond cutter of Jensen is the edge around the top cutting surface 207. *Id.*, column 6, line 2.

Furthermore, instant claim 1 recites "the protective layer which is bonded to the shelf is formed of tungsten carbide of a different grade to that of the substrate, or

of tool steel, or of another suitable material” as an essential element of the invention.

Therefore, element 205 cannot correspond to the instantly claimed shelf as alleged in the Office Action, because the material in element 205 of Jensen is diamond. *Jensen*, column 6, line 3. Further still, the ring 205 of diamond is provided to improve the adhesion properties of the diamond surface region 202 to the carbide substrate 201. *Id.*, column 6, lines 3-5.

For at least the foregoing reasons, Applicants’ attorneys respectfully submit that independent claim 1 patentably distinguishes over the relied upon portions of Jensen and is therefore allowable. Further, claims 2, 5 and 6 that depend from claim 1, are allowable therewith.

Statements appearing above with respect to the disclosures in the cited references represent the present opinions of the Applicant’s undersigned attorney and, in the event that the Examiner disagrees with any such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the respective reference providing the basis for a contrary view.

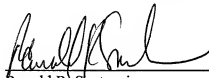
CONCLUSION

In view of the foregoing, Applicant believes that all of the claims in this application are patentable over the prior art, and an early and favorable consideration thereof is solicited.

Please charge any fees incurred by reason of this response and not paid herewith to
Deposit Account No. 50-0320.

Respectfully submitted,
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